

PORTABLE COOLER

Field of the Invention:

The present invention is directed to a portable cooler. Specifically, the present invention is directed to a motor vehicle style portable cooler.

Background of the Invention

There exists many different types and styles of coolers for cooling and storing perishables, in particular food and beverages. The older style coolers typically were manufactured with a sheet metal exterior, insulated with foam, and finished off inside with a vacuum form plastic sheet material. These coolers included a lower cooler chest having a large single compartment and provided with an upper hinged lid with a latch for securing the same to prevent inadvertent opening.

Newer style coolers tend to be made of injection molded plastic material, again with a lower cooler chest portion and an upper lid portion hinged together or the lid is fully removable. The newer plastic molded type coolers typically have some surface contouring to provide raised edges for reinforcement, textured panels and/or raised lettering (e.g. manufacturer's name).

There exists at least one newer type cooler having a pair of wheels near the bottom trailing edge of the cooler chest and a handle to allow a person to pull or drag the cooler behind themselves as they are walking forward. The wheels reduce the fatigue on the person carrying the entire cooler, and allow for a greater load to be carried by the same person versus lifting and carrying a particular load.

The present invention provides for a new and unique type of cooler having a particular theme (i.e. a theme cooler), which combines novel features for a cooler in combination with highly improved aesthetic looks and functionality.

Summary of the Invention

5 A first object of the present invention is to provide an improved portable cooler.

A second object of the present invention is to provide a portable cooler characterized by exhibiting a theme to a viewer observing the cooler.

A third object of the present invention is to provide a portable cooler configured to simulate a motor vehicle.

10 A fourth object of the present invention is to provide a portable cooler, including at least one pair of operational wheels to allow pulling or dragging the cooler.

A fifth object of the present invention is to provide a portable cooler configured to have one or more features and/or components of a motor vehicle.

15 A sixth object of the present invention is to provide a portable cooler configured to simulate a race car.

A seventh object of the present invention is to provide a portable cooler configured to simulate a motor vehicle in combination with at least a pair of operational wheels configured to simulate wheels and tires of the particular motor vehicle being simulated with the cooler.

An eighth object of the present invention is to provide a portable cooler configured to include motor vehicle body panels or portions to simulate a portion or entire motor vehicle.

5 A ninth object of the present invention is to provide a portable cooler having one or more simulated body components or features such as a hood and/or trunk, which can be opened to provide access to one or more separate compartments of the cooler.

A tenth object of the present invention is to provide a portable cooler configured to simulate a motor vehicle in combination with an attachment to simulate for example a trailer.

10 The present invention is directed to a portable cooler. More specifically, the present invention is directed a portable cooler configured to simulate one or more panels, components and/or features of a motor vehicle.

15 The portable cooler according to the present invention can be made of a variety of materials, including metal, rubber, plastic, composite and/or other suitable material. Preferably, the entire cooler is made of one or more injection molded plastic components designed and configured to minimize the cost and expense of assembly.

20 A preferred embodiment of the cooler according to the present invention includes a lower cooler chest provided with one or more compartments therein. A closure such as a lid is connected, preferably by a hinge (e.g. multiple component hinge or live hinge to the lower cooler chest). In a preferred embodiment, the lid and cooler chest are provided with a releasable latch or lock to secure the lid to the cooler chest when the lid is closed. Optionally, the lid is fully removable as a separate component from the lower cooler chest.

In preferred embodiments of the portable cooler according to the present invention, motor vehicles are simulated by the cooler chest portion of the portable cooler. In a more sophisticated embodiment, both the lower cooler chest portion and upper lid portion are configured to simulate a motor vehicle.

5 The motor vehicle can be simulated in the lower chest portion and/or upper lid portion by various techniques. For example, the outer surface can be sculptured, machined, contoured, textured, shaped or otherwise configured to display one or more components or features of the motor vehicle. For example, the exterior surface of the cooler chest portion can be injection molded to provide the shape of body panels (e.g. fender, door panel, rear quarter panel, front window, side window, rear window, hood, 10 roof, trunk, bumpers, tires, wheels, wheel wells, rocker panels, lights, grilles, mirrors, windshield wipers, antennas, scoop, airfoil, moon roof, mud flaps, insignias, and other standard features of an actual motor vehicle). Further, the cooler can be colored to provide contrast between components and also provided with decals again to further differentiate various components and/or enhance the overall appearance of the simulated motor vehicle. 15

20 The motor vehicle being simulated on the portable cooler according to the present invention can be proportionally to scale and/or one or more features or components can be exaggerated in size and/or shape. It is desirable to provide a substantially rectangular parallela pipe-head configuration of the cooler chest and lid to maximize the space and utility of the cooling compartment. Thus, in some embodiments of the cooler according to the present invention, the motor vehicle is exaggerated in the height direction to accommodate the height required for providing a usable size cooler. Alternatively, a lower portion of the cooler chest is configured to simulate a motor vehicle while an upper 25 portion of the cooler chest remains substantially generic (i.e. no specialized design).

In a more advanced embodiment of the cooler according to the present invention, the lower cooler chest and upper lid are shaped and are coordinated together to simulate a motor vehicle. Specifically, the lid can be configured to be the hood panel, roof panel and/or trunk panel of an automobile. One or more of these particular panels can open into the same or different compartments within the cooler. For example, the roof panel can be a lid for a large center compartment that lifts totally off the cooler chest, and both the hood panel and trunk panel hinge so they can be opened into two additional separate compartments within the cooler. In this manner, the center compartment can be used for cooling items, while the side panels can be used for storing dry items. (e.g. snacks, plastic utensils, cups and plates, diapers, diaper wipes and other consumer articles).

The wheels of the cooler according to the present invention are configured to simulate tires and wheels of a motor vehicle. Specifically, the wheels can be multiple components including a separate tire portion mounted on a separate wheel portion, or more preferably the wheels are made of injection molded plastic and sculptured, textured, colored or otherwise configured to simulate a tire mounted on a wheel. The wheels can be molded with a partial or full axle so as to connect with the cooler chest. Alternatively, a pair of plastic injection molded wheels are configured to accept the free end of a substantially heavy gauge metal rod that passes through a lower portion of the cooler chest into a pair of wheel wells to be connected to the plastic injection molded wheels (e.g. ends of metal rod are configured to provide a connection (e.g. snap fit connection or lock washer) with recesses provided in the plastic injection molded wheels). More specifically, a lower portion of the cooler chest is molded with at least one pair of opposed recesses to simulate wheel wells of a motor vehicle, and the metal rod is assembled through a passage provided in a bottom wall of the cooler chest and opens into each wheel well. The wheels are mounted by installing the metal rod through this passageway, and then connecting the wheels to the metal rod so that the wheels are retained and recessed within the wheel wells.

The simulated motor vehicle wheels and tires of the cooler according to the present invention are configured to cooperate with the simulated motor vehicle. Specifically, the location of the operational wheels, their size and shape are consistent with the overall motor vehicle simulated on the cooler according to the present invention. In this manner, when the cooler is pulled by a user, the wheels roll or spin in like manner to the actual wheels on a motor vehicle.

The portable cooler according to the present invention can be provided with a single pair of operational wheels or a set of four (4) or more operational wheels. In one embodiment, a pair of operational wheels simulate the wheels on a motor vehicle and the other pair of wheels are non-operational, however, are simulated on the exterior surface of the cooler chest itself. Alternatively, all four (4) wheels can be operational, for example, to simulate the tires and wheels on a race car.

The portable cooler according to the present invention can be configured to simulate many different types and styles of motor vehicles. For wheel type motor vehicles, there preferably exists at least one (1) axle with two (2) simulated motor vehicle wheels to provide operational wheels for rolling the cooler by a user. For motor vehicles having a track arrangement (e.g. bulldozer), a pair of operational tracks can be provided to simulate the track arrangement on the actual motor vehicle. Likewise, skids and/or skis can be provided to simulate motor vehicles having skids and skis (e.g. snowmobile) to add some level of realism to the look of the finished cooler related to the actual motor vehicle itself. In that particular embodiment, the cooler can be utilized in a winter setting on snow, sleet and/or ice. Alternatively, the skid or sled can be provided with skid pads (e.g. high wear resistant Teflon pads) and/or in combination with operational wheels or tracks for use on dry pavement or sidewalks.

Brief Description of the Drawings

Figure 1 is a perspective view of a portable cooler according to the present invention.

Figure 2 is a side elevational view of the portable cooler as shown in Figure 1.

Figure 3 is a top planar view of the portable cooler as shown in Figure 1.

Figure 4 is a front end elevational view of the portable cooler as shown in Figure 1.

Figure 5 is a back end elevational view of the portable cooler as shown in Figure 1.

Figure 6 is a side elevational view of the portable cooler as shown in Figure 1, with the upper lid portions open.

Figure 7 is a cross-sectional view of the portable cooler as indicated in Figure 2.

Figure 8 is a side elevational view of another embodiment of the portable cooler according to the present invention.

Figure 9 is a side elevational view of the portable cooler according to the present invention as shown in Figure 1 coupled to a trailer type second portable cooler according to the present invention.

Detailed Description of Preferred Embodiments

A portable cooler 10 according to the present invention is shown in Figures 1-7.

The portable cooler 10 includes a lower cooler chest portion 12 connected to an upper lid portion 14. The lower cooler chest portion 12 is provided with a set of four (4) operational wheels 16. Further, the lower cooler chest portion 12 is provided with a hinged handle 18 to allow pulling the portable cooler 10.

The portable cooler 10 is configured to simulate a race car (e.g. NASCAR type race car), however, the proportions of the car have been exaggerated in the height direction to accommodate the height required for providing a cooler having sufficient size and convenient shaped storage space. Specifically, the lower cooler chest portion 12 is contoured to display various body panels including fender panel 20, door panel 22, quarter panel 24, hood panel 26, roof panel 28, trunk panel 30, rocker panel 32, front window 34, side window 36 and rear window 38. The contoured or sculpted exterior surface of the lower cooler chest 12 and upper lid portion 14 show lines of demarcation between the panels the same or similar to an actual race car motor vehicle. Further, the portable cooler 10 can be provided with various decals, including number ("25") 40, headlight decals 42, fog light decals 44 and roll cage netting decals 46.

The overall shape of the lower cooler chest portion 12 is a substantially rectangular parallelepiped. The features of the race car displayed by the lower cooler chest portion 12 have been exaggerated in the height direction of the portable cooler 10. However, the portion of the race car simulated in the upper lid portion 14 is substantially proportional in both the length and height direction with respect to an actual race car. Thus, in this particular embodiment, only the lower portion of the car race being simulated is exaggerated and displayed by the lower cooler chest portion 12. In other embodiments, the motor vehicle being simulated can be exaggerated in both the lower

cooler chest portion 12 and upper lid portion 14. Alternatively, other embodiments can have a lower cooler chest portion 12 and an upper lid portion 14 substantially proportional to scale (i.e. not exaggerated).

In a preferred embodiment, the upper lid portion 14 is provided with at least one (e.g. two (2)) cup holder 15 provided on or in (e.g. molded) upper lid portion 14.

As shown in Figure 6, the upper lid portion 14 is configured as two (2) separate upper lid portions 14a and 14b. The upper lid portion 14a is connected by a hinge 15a to an upper leading edge of the lower cooler chest portion 12. The upper lid portion 14b is connected by a hinge 15b at the upper trailing portion of the lower cooler chest portion 12. The hinges 15a and 15b can be multi-component hinges or live hinges. In one embodiment, the lower cooler chest portion 12 is provided with single compartment therein, and thus the upper lid portions 14a and 14b would both cover the single compartment. Alternatively, there exists two (2) separate compartments in the lower cooler chest portion 12, and the upper lid portion 14a covers one compartment and the upper lid portion 14b covers the other compartment in that particular embodiment.

The wheels 16 are configured to simulate tires and wheels of the simulated race car on the portable cooler 10. Specifically, the wheels 16 can be made of injection molded plastic and contoured, sculpted and/or colored to suggest a tire mounted on a wheel having spokes, as shown in the drawings. In the embodiment shown in Figure 1, all four (4) wheels are operational, however, in other embodiments only one pair of wheels may be operational and the other pair may be injection molded and simulated in the lower cooler chest portion 12. For example, the front pair of wheels can be simulated as a portion of the lower cooler chest portion 12 and not operational, however, still allowing the cooler to be pulled by use of the rear operational wheels 16. The wheels 16 are located in wheel wells 17, as shown in Figure 7. The lower cooler chest portion 12

is provided with a passageway 12a for accommodating a metal rod 52. The ends of the metal rod 52 are connected to the wheels 16 (e.g. by snap fit connection or lock washers).

The portable cooler 10 is preferably made of injection molded plastic to minimize cost and assembly. Further, the outer surface of the portable cooler 10 can be shaped, contoured, sculpted or otherwise designed to simulate a motor vehicle such as the race car as shown in Figure 1.

Another embodiment of a portable cooler 10' according to the present invention is shown in Figure 8. In this particular embodiment, the race car is simulated only in the lower cooler chest portion 12. For example, the race car shown is proportionally to scale (i.e. not exaggerated), and can be made by injection molding the outer surface of the lower cooler chest portion 12 to have the particular design shown. In this embodiment, the upper lid portion 14' can be connected by a hinge, or just fully removable and replaceable for loading and unloading the portable cooler 10'. The portable cooler 10' is also provided with handgrip portions 54.

A further embodiment of the portable cooler 10 in combination with a trailer styled cooler 100 is shown in Figure 9. In this embodiment, a trailer styled portable cooler 110 is shown coupled via a hitch 200, to the race car type portable cooler 10 according to the present invention. In this manner, one or more attachments such as the trailer styled portable cooler 110 can be connected to the race car type portable cooler to provide for a larger load and/or different loads to be contained within the compartments of each. As an alternative to the hitch 200, the trailer styled portable cooler 110 can be provided with a handle similar to the handle 18 of the portable cooler 10, which handle 18 and portable cooler 10 can be configured to connect together without a specific hitch. Thus, two or more portable coolers according to the present invention can be coupled together and for example, even form a train-like arrangement.